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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Siemens Corporation
Intellectual Property Department
170 Wood Avenue South
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EXAMINER	
LEE, CHRISTOPHER E	
ART UNIT	**PAPER NUMBER**
2112	

DATE MAILED: 09/26/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/511,022	GRUNER ET AL.	
	Examiner	Art Unit	
	Christopher E. Lee	2112	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *22 August 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *4,9,10 and 12* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *4,9,10 and 12* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Receipt Acknowledgement

1. Receipt is acknowledged of the Amendment filed on 22nd of August 2006. Claims 4, 9, 10, and 12 have been amended; no claim has been canceled; and no claim has been newly added since the RCE Non-Final Office Action was mailed on 13th of June 2006. Currently, claims 4, 9, 10, and 12 are pending in this Application.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

4. Claims 4, 9, 10, and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicants' Admitted Prior Art [hereinafter AAPA] in view of Becker [US 6,233,509 B1], Nishikawa et al. [US 6,587,901 B2; hereinafter Nishikawa], and Price et al. [US 5,920,197 A; hereinafter Price].

Referring to claim 4, AAPA discloses a system (i.e., mobile operator control and monitoring system in Fig. 1; See paragraph [0003], lines 1-3) for connecting a mobile data unit (i.e.,-Device in Fig. 1) to a field bus (i.e., Field bus in Fig. 1; See paragraph [0005], lines 1-4), comprising:

- a mobile data unit (i.e., said Device) connected to the field bus (i.e., said Field bus) via a spur line (i.e., Spur line in Fig. 1) and a line driver (i.e., Line driver in Fig. 1; See paragraph [0005], lines 4-7).

AAPA does not teach a coupling unit connected to the field bus via the spur line and the line driver, wherein signals at an output of the line driver are injected via a first level converter in the coupling unit into a first data link or are received from the first data link; and the mobile data unit receiving the signals via a first level converter in the mobile data unit from the first data link or injecting the signals into the first data link.

Becker discloses a system (i.e., electronic diagnostic system; See Abstract and col. 1, lines 6-7) for connecting a mobile data unit (i.e., test equipment Analyzer 3 of Fig. 1) to a field bus (i.e., CAN bus; See col. 2, lines 54-59), wherein means for separating two components (i.e., said test equipment Analyzer and vehicle on said CAN bus) comprising

- a coupling unit (i.e., Active connector 1 of Fig. 1) connected to the field bus (i.e., said CAN bus) via a spur line (i.e., Conductors 5-8 in Fig. 1) and a line driver (i.e., physical layer Circuit 9 of Fig. 1; See col. 2, line 53 through col. 3, line 1), wherein
    - signals (i.e., unidirectional digital signals) at an output of the line driver (i.e., at an output of said physical layer Circuit; See col. 2, lines 65-67) are injected via a first level converter in the coupling unit (i.e., differential line driver/receiver circuit 11 of Fig. 1) into a first data link (i.e., Cable 2 of Fig. 1) or are received from the first data link (See col. 3, lines 1-3 and Fig. 1); and

- a mobile data unit (i.e., test equipment Analyzer 3 of Fig. 1) receiving the signals (i.e., said unidirectional digital signals) via a first level converter in the mobile data unit (i.e., differential line driver/receiver circuit 12 of Fig. 1; See col. 3, lines 4-9) from the first data link (i.e., said Cable) or injecting the signals into the first data link (See col. 4, lines 14-22 and Fig. 1); and
- the first data link (i.e., said Cable) connected to the first level converter (i.e., said differential line driver/receiver circuit) in the coupling unit (i.e., said Active connector) for communicating data between the mobile data unit and the field bus (i.e., communicating between said test equipment Analyzer and said CAN bus; See col. 2, line 53 through col. 3, line 3).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have included said means for separating two components, as disclosed by Becker, in said system (i.e., mobile operator control and monitoring system), as disclosed by AAPA, for the advantage of providing the separation of two components, i.e., line driver and field bus controller, such that one of the components, i.e., line driver, is in the connector at one end of the cable and the other component, i.e., field bus controller, is in said mobile data unit (i.e., analyzer) at the other end of a data link (i.e., cable; See Becker, col. 2, lines 29-38).

AAPA, as modified by Becker, does not teach a presence detection circuit comprising a digital signal line providing a presence signal responsive to coupling of the mobile data unit to the coupling unit; and a local controller connected to the field bus and connected to the presence detection circuit for receiving the presence signal, wherein the local controller can transmit a selection of views to the mobile data unit via the digital signal line.

Nishikawa discloses an information processing system (See Fig. 1 and Abstract), wherein

- a presence detection circuit (i.e., connection detection circuit 210, bus control circuit 211, and BC on signal lines 113 and 213 in Fig. 1) comprising a digital signal line (i.e., said signal line 213 of Fig. 1) providing a presence signal (i.e., detection signal) responsive to coupling of a mobile data unit (i.e., portable information terminal 100 of Fig. 1) to a coupling unit (i.e., bus connector 207 of Fig. 1; See col. 5, lines 49-55); and
- a local controller (i.e., CPU 201 of Fig. 1) connected to a field bus (i.e., internal bus 206 of Fig. 1; said CPU being connected to said internal bus in Fig. 1) and connected to the presence detection circuit (i.e., said CPU being connected to said connection detection circuit and bus control circuit in Fig. 1) for receiving the presence signal (See col. 5, lines 49-55),
    - wherein the local controller (i.e., said CPU) can transmit a selection of views (i.e., configuration) to the mobile data unit (i.e., said portable information terminal) via the digital signal line (i.e., via said signal line 213 of Fig. 1; See col. 3, lines 14-24 and col. 5, line 61 through col. 6, line 8).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have included said presence detection circuit (i.e., connection detection circuit and bus control circuit), as disclosed by Nishikawa, in said coupling unit (i.e., Active connector), as disclosed by AAPA, as modified by Becker, for the advantage of providing unnecessary of delivering a signal controlling said coupling unit (i.e., bus connection means) from device on said field bus device (i.e., information processing apparatus) to said mobile data unit (i.e., portable electronic equipment), enabling a reduction in the number of data link lines (i.e., transmission lines; See Nishikawa, col. 3, lines 24-28).

AAPA, as modified by Becker and Nishikawa, does not expressly teach the first data link connected to the first level converter in the coupling unit via an electrical jack for communicating data.

Price discloses a system (i.e., electronic device in Fig. 1), wherein

- a first data link (i.e., communication channel L1-LN in Fig. 1) connected to a first level converter (i.e., general purpose device 10 of Fig. 1) in a coupling unit via an electrical jack (i.e., connector C1-CN in Fig. 1) for communicating data (See col. 3, line 48 through col. 4, line 7).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have included said electrical jack (i.e., connector), as disclosed by Price, between said data communication links and said level converters, as disclosed by AAPA, as modified by Becker and Nishikawa, for the advantage of allowing easy coupling between said mobile data unit (i.e., video display device) and a device on said field bus (i.e., computer processor; See Price, col. 4, lines 51-53).

Referring to claim 9, Nishikawa teaches

- the presence detection circuit (i.e., connection detection circuit 210, bus control circuit 211, and BC on signal lines 113 and 213 in Fig. 1) comprises an additional signal line (i.e., signal line 113 of Fig. 1), and
- the local controller (i.e., CPU 201 of Fig. 1) can transmit a selection of views (i.e., configuration) to the mobile data unit (i.e., portable information terminal 100 of Fig. 1) via the additional signal line (i.e., via said signal line 113 of Fig. 1; See col. 3, lines 14-24 and col. 5, line 61 through col. 6, line 8).

Referring to claim 10, AAPA, as modified by Becker, Nishikawa, and Price teaches

- second, and third level converters (i.e., differential line driver/receiver circuit 11 of Fig. 1 of Becker; in fact, said differential line driver/receiver circuit of Becker has been applied to Control signal, Transmit data, and Receive data in Fig. 1 of AAPA, respectively, after the proper combination between AAPA and Backer) connected to the line driver (i.e., Line driver in Fig. 1; AAPA) for data communication therewith (See AAPA, paragraph [0005], lines 4-7);
- a second data link (i.e., Receive data in Fig. 1; AAPA) connected to the second level converter (i.e., said differential line driver/receiver circuit for said Receive data) for communicating data between the mobile data unit and the field bus (See Becker, col. 3, lines 1-3 and Fig. 1);
- a third data link (i.e., Control signal in Fig. 1; AAPA) connected to the third level converter (i.e., said differential line driver/receiver circuit for said Control signal) for communicating control signals between the mobile data unit and the line driver (See Becker, col. 3, lines 1-3 and Fig. 1); and
    - wherein each level converter (i.e., said differential line driver/receiver circuit; Becker) converts an electrical signal (i.e., unidirectional digital signal; See Becker, col. 2, lines 65-67) between a short range electrical signal (i.e., signals on physical layer Circuit 9 in Fig. 1; Becker) provided to or from the line driver (i.e., said physical layer Circuit; Becker) and a longer range electrical signal (i.e., signals on Cable 2 in Fig. 1; Becker) provided to or from the respective data link (i.e., signal lines in said Cable; Becker).

Referring to claim 12, AAPA discloses a system (i.e., mobile operator control and monitoring system in Fig. 1; See paragraph [0003], lines 1-3) for connecting a mobile data unit (i.e., Device in Fig. 1) to a field data bus (i.e., Field bus in Fig. 1; See paragraph [0005], lines 1-4), comprising:

- a line driver (i.e., Line driver in Fig. 1) connected to the field data bus for data communication therewith (See paragraph [0005], lines 4-7);
- a first data communication link (i.e., Transmit data in Fig. 1) for communicating data between the mobile data unit and the field data bus (See paragraph [0006]; in fact, the transmitting data from Field bus controller to Line driver in Fig. 1);
- a second data communication link (i.e., Receive data in Fig. 1) for communicating data between the mobile data unit and the field data bus (See paragraph [0006]; in fact, the receiving data from Line driver to Field bus controller in Fig. 1);
- a third data communication link (i.e., Control signal in Fig. 1) for communicating control signals between the mobile data unit and the line driver (See paragraph [0006]; in fact, the transmitting control signal from Field bus controller to Line driver in Fig. 1).

AAPA does not teach first, second, and third line signal level converters connected to the line driver for data communication therewith; the first data communication link connected to the first line signal level converter for communicating data between the mobile data unit and the field data bus; the second data communication link connected to the second line signal level converter for communicating data between the mobile data unit and the field data bus; the third data communication link connected to the third line signal level converter for communicating control signals between the mobile data unit and the line driver; each line signal level converter converting an electrical signal between a short range electrical signal provided to or from the

line driver and a longer range electrical signal provided to or from the respective data communication link; the respective data communication links comprising a connecting cable for selectively connecting the mobile data unit to the field data bus.

Becker discloses a system (i.e., electronic diagnostic system; See Abstract and col. 1, lines 6-7) for connecting a mobile data unit (i.e., test equipment Analyzer 3 of Fig. 1) to a field data bus (i.e., CAN bus; See col. 2, lines 54-59), wherein means for separating two components (i.e., said test equipment Analyzer and vehicle on said CAN bus) comprising

- a line driver (i.e., physical layer Circuit 9 of Fig. 1) connected to the field data bus for data communication therewith (See col. 2, line 53 through col. 3, line 1);
- a line signal level converter (i.e., differential line driver/receiver circuit 11 of Fig. 1) connected to the line driver (i.e., said physical layer Circuit) for data communication therewith (See col. 3, lines 1-3 and Fig. 1);
- a data communication link (i.e., Cable 2 of Fig. 1) connected to the line signal level converter (i.e., said differential line driver/receiver circuit) for communicating data between the mobile data unit (i.e., said test equipment Analyzer) and the field data bus (i.e., said CAN bus; See col. 2, line 54 through col. 3, line 9);
- the line signal level converter (i.e., said differential line driver/receiver circuit) converting an electrical signal (i.e., unidirectional digital signal; See col. 2, lines 65-67) between a short range electrical signal (i.e., signals on physical layer Circuit 9 in Fig. 1) provided to or from the line driver (i.e., said physical layer Circuit) and a longer range electrical signal (i.e., signals on Cable 2 in Fig. 1) provided to or from the data communication link (i.e., signal lines in said Cable); and
- the data communication link (i.e., said Cable) comprising a connecting cable for selectively connecting the mobile data unit to the field data bus (i.e., four wires in said

Cable for selectively connecting said test equipment Analyzer to said CAN bus in Fig. 1; See col. 3, lines 22-23).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have included said means for separating two components, as disclosed by Becker, in said system (i.e., mobile operator control and monitoring system), as disclosed by AAPA, for the advantage of providing the separation of two components, i.e., line driver and field bus controller, such that one of the components, i.e., line driver, is in the connector at one end of the cable and the other component, i.e., field bus controller, is in said mobile data unit (i.e., analyzer) at the other end of a data link (i.e., cable; See Becker, col. 2, lines 29-38).

AAPA, as modified by Becker, does not teach a presence detection circuit providing a presence signal responsive to connection of the mobile data unit to the field data bus via the connecting cable; and a local controller connected to the field data bus and receiving the presence signal; wherein the presence detection circuit comprises a digital signal line, and the controller can transmit a selection of views to the mobile data unit via the digital signal line.

Nishikawa discloses an information processing system (See Fig. 1 and Abstract), wherein

- a presence detection circuit (i.e., connection detection circuit 210 and bus control circuit 211 in Fig. 1) providing a presence signal (i.e., detection signal) responsive to connection of a mobile data unit (i.e., portable information terminal 100 of Fig. 1) to a field data bus (i.e., internal bus 206 of Fig. 1) via a connecting cable (i.e., means for connecting between said portable information transmission device and said internal bus of host information processing apparatus 200 in Fig. 1); and
- a local controller (i.e., CPU 201 of Fig. 1) connected to the field data bus (i.e., said CPU being connected to said internal bus in Fig. 1) and receiving the presence signal (See col. 5, lines 49-55); wherein

- the presence detection circuit (i.e., said connection detection circuit and bus control circuit) comprises a digital signal line (i.e., signal line from said CPU to bus control circuit 211 in Fig. 1), and
- the local controller (i.e., said CPU) can transmit a selection of views (i.e., configuration) to the mobile data unit (i.e., said portable information terminal) via the digital signal line (See col. 3, lines 14-24 and col. 5, line 61 through col. 6, line 8).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have included said presence detection circuit (i.e., connection detection circuit and bus control circuit), as disclosed by Nishikawa, in said system (i.e., electronic diagnostic system), as disclosed by AAPA, as modified by Becker, for the advantage of providing unnecessary of delivering a signal controlling said coupling unit (i.e., bus connection means) from device on said field data bus (i.e., information processing apparatus) to said mobile data unit (i.e., portable electronic equipment), enabling a reduction in the number of data link lines (i.e., transmission lines; See Nishikawa, col. 3, lines 24-28).

AAPA, as modified by Becker and Nishikawa, does not expressly teach the first , second, and third data communication links connected to the first, second, and third level converters in the coupling unit via an electrical jack for communicating data, respectively.

Price discloses a system (i.e., electronic device in Fig. 1), wherein

- data communication links (i.e., communication channel L1-LN in Fig. 1) connected to a level converter in a coupling unit (i.e., general purpose device 10 of Fig. 1) via electrical jacks (i.e., connector C1-CN in Fig. 1) for communicating data (See col. 3, line 48 through col. 4, line 7).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have included said electrical jacks (i.e., connectors), as disclosed by Price, between said respective data communication links and level converters, as disclosed by AAPA, as modified by Becker and Nishikawa, for the advantage of allowing easy coupling between said mobile data unit (i.e., video display device) and a device on said field bus (i.e., computer processor; See Price, col. 4, lines 51-53).

Response to Arguments

5. Applicants' arguments filed 22nd of August 2006 have been fully considered but they are not persuasive.

In response to the Applicants' argument with respect to " Examiner states ... Here the Examiner uses the term 'field bus controller' to mean a mobile controller corresponding to Applicant's claimed 'mobile data unit', or the 'BuB' device of Applicant's FIGs 3 and 4. However, the term 'controller' in Applicant's claims 4 and 12 refers instead to a local industrial controller or PLC as shown in Fig. 4 and as described in Applicant's paragraph [0019]. ..." in the Response page 5, lines 10-23, the Examiner believes that the Applicants misinterpret the claim rejection.

In fact, the Examiner has never use the term "field bus controller" to mean the claimed subject matter "controller."

Moreover, the amended claim language "local controller" for the subject matter "controller" is still suggested by Nishikawa in the record of the prior art (See paragraph 4 of the instant Office Action, Claims 4, 9, 10, and 12 rejection under 35 U.S.C. 103(a) as being unpatentable over AAPA in view of Becker, Nishikawa, and Price).

In addition, it is noted that the features upon which applicants rely (i.e., "local industrial controller" or "PLC") are not recited in the rejected claims. Although the claims are interpreted

in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Thus, the Applicants' argument on this point is not persuasive.

In response to the Applicants' argument with respect to "... Combining the sensor circuit of Price with the system of Nishikawa would replace the connection detection circuit 210 of Nishikawa. However, Nishikawa does not describe any special connector components in the bus connectors 109, 209 or in the bus control connectors 114, 214 for presence detection, so there is no motivation in the prior art for this combination. ... Neither the system of Nishikawa nor the presence detection circuit Price comprise a digital signal line that transmits a selection of views from a local controller to a mobile data unit via the digital signal line, as claimed in both of Applicant's independent claims 4 and 12. ..." in the Response page 6, line 1 through page 7, line 2, the Examiner respectfully disagrees.

In contrary to the Applicants' assertion, the combining Price with Nishikawa does not replace the connection detection circuit of Nishikawa by the sensor circuit of Price. Instead, the electrical jack (i.e., connector) of Price is included between the data communication links and the level converters of AAPA, as modified by Becker and Nishikawa, for the advantage of allowing easy coupling between said mobile data unit (i.e., video display device) and a device on said field bus (i.e., computer processor; See Price, col. 4, lines 51-53).

Furthermore, Nishikawa clearly discloses that the CPU (i.e., local controller) can transmit the configuration (i.e., a selection of views) to the portable information terminal (i.e., mobile data unit) via the signal line (i.e., digital signal line), which is fully suggesting the argued element (See Nishikawa, col. 3, lines 14-24 and col. 5, line 61 through col. 6, line 8).

Therefore, the combination of AAPA, Becker, Nishikawa, and Price, with rationale for the proper combining, suggests the obviousness of the claimed invention in the exemplary claim 4, and thus, the Applicants' argument on this point is not persuasive.

Conclusion

6. Applicants' amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher E. Lee whose telephone number is 571-272-3637. The examiner can normally be reached on 9:30am - 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rehana Perveen can be reached on 571-272-3676. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Christopher E. Lee
Primary Patent Examiner
Art Unit 2112

CEL/